GROUND TRUTH

JOINT BATTLE DAMAGE ASSESSMENT NEWSLETTER

Issue No. 4 October 2002

Time Flies!

Since the last newsletter in April 2002, the JBDA JT&E has moved to a new facility about one mile from the US Joint Forces Command Joint Warfighting Center. We published a draft of our report on JBDA relative to Operation ENDURING FREEDOM (OEF). We hosted a Joint Battle Damage Assessment symposium on 13-14 June 2002 with over 50 attendees representing joint commands world-wide. Of prime significance, JBDA JT&E deployed 45 personnel to UFL 02 in Korea in August 2002 to collect data that would allow us to establish a baseline view of the joint BDA process in that theater. Data was collected both manually and electronically in 35 cells/nodes at 15 locations across Korea, including the CFC at CP Tango, the ACC at Osan, the GCC at Camp Humphreys, the NCC aboard USS BLUE RIDGE (LCC-19), and the CMEF at Pohang. Additionally, JBDA representatives were sent to several Federated Partner locations to collect data relative to their participation in the process. Our collection of data was an unqualified success. The JBDA JT&E is dependent upon and grateful to a number of people and agencies providing their support. I would like to express particular appreciation to USFK/CFC and the component commanders for allowing JBDA to participate in UFL 02.

In accordance with the JBDA JT&E charter and test plan, the collected data has been entered into a unique database that allows JBDA to verify the "as is" joint BDA process in the Korean theater. Quantitative analysis is now underway. Once completed, our analysis of the UFL 02 data will be catalogued and analyzed for potential improvements and enhancements. We will search for trends observed that would assist in the selection of potential enhancements to improve the BDA process. Some of the potential enhancements JBDA is currently considering include the development DOTMLP-F wide initiatives to integrate BDA processes better within theater and some that have applicability and utility across combatant commands.

Our schedule drives us to present our observations and proposed enhancements to the theater during the UFL 03 initial and middle planning conferences. Upon USFK approval of the enhancements, they will be incorporated into existing BDA processes with appropriate

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THE MISSION OF JBDA

JBDA is chartered to employ multi-Service and other Department of Defense agency support, personnel, and equipment to investigate, evaluate, and improve BDA for the joint force commander to facilitate operational decision-making. JBDA will accomplish this mission by:

- Identifying, testing, and assessing current BDA processes and procedures, and recommending and evaluating enhancements
- Characterizing current BDA training and manpower authorizations for unified command, Service, and agency BDA personnel, and recommending and evaluating training improvements
- Defining system and architecture interoperability, and nominating and testing solutions (enhancements)

changes to existing TTPs, SOPs, and training programs. It is of paramount importance to establish potential enhancements as early as possible so that the players in UFL 03 who will participate in the joint BDA process have sufficient time to understand and be trained in the new procedures.

Now, we have to buckle down

Our purpose as a JT&E is to assist the joint warfighter in finding ways to do the job better with the tools, organizations, and doctrine available today. Our first step, the collection of data from UFL 02, is complete. Now, we have to buckle down and develop the enhancements that will enable the joint warfighter to accomplish that. Wish us luck in the coming months.

For more information about Joint Battle Damage Assessment Joint Test and Evaluation, visit our website.
Visit us @ www.jbda.jte.osd.mil or
www.jbda.jte.osd.smil.mil

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BDA Symposium

The second annual BDA Symposium was held 13-14 June 2002 at the JBDA JT&E facility in Suffolk, VA. Fifty-two participants from around the world shared ideas in the form of briefings and problem-solving working groups. The BDA community was represented by USJFCOM, HQ USAF, NRO, USSOUTHCOM, USSPACECOM, USSTRATCOM, USEUCOM, USTRANSCOM, JCS/J2, HQMC, USCENTCOM, and representatives from the United Kingdom.

BG Marks, CG USA Intel Center and Ft. Huachuca, began the symposium by giving a perspective of BDA with thoughts on the future. He provided an outline of doctrinal considerations and perspectives, as well as an overview of a generic BDA cell, OEF operations, and the Global War on Terrorism. This was followed by briefings, including coverage of OEF from an air and ground perspective, a J2T overview, MEA, and the USFK AOC reorganization.

By the end of the first day, three working groups were formed to cover the BDA processes (mobile BDA TTP, databases, reports, immediate target approval, command CONOPS, training, and MIDB changes) and means (mobile target identification, common operational picture, virtual collaboration, and planned target approval). Some of the many issues discussed were:

- Providing a statement of requirement to the JDMPI Tiger Team for standardizing tracking and portraying mobile target BDA

- Initiating the element responsible for coordinating collection requirements for attacked or re-attacked targets

- Exercising BDA CONOPS with Federated Partners on a regular (recommended annual) basis

- Models of each command's (national, theater, and component) BDA cell placed on a web page for reference

- Establishing augmentee requirements at the joint level

The symposium concluded with a debriefing of issues, results, and action items identified within the working groups. The symposium minutes are available on the SIPRNET - www.jbda.jte.osd.smil.mil/symposium/briefs02/agenda.html.

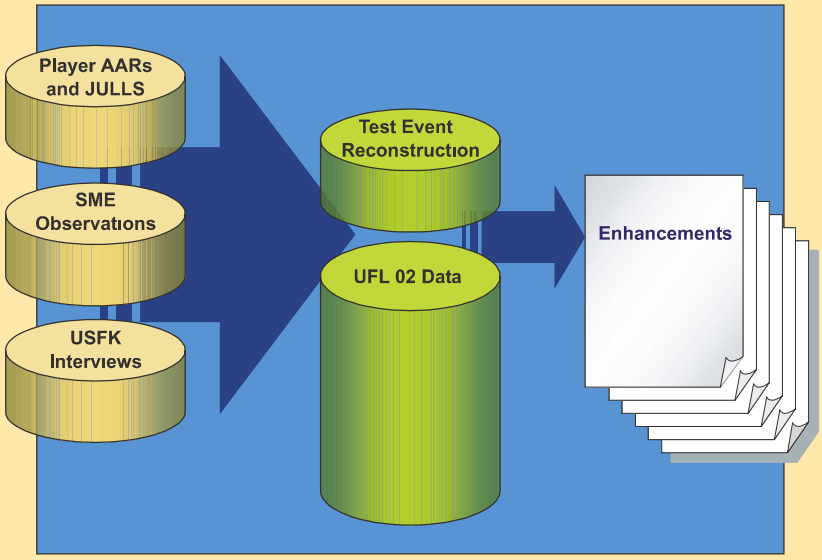
Roadmap to the Enhanced Test...UFL 03

In September 2002, the JBDA team reassembled at its headquarters in Suffolk, VA to undertake the arduous task of reconstructing the automated, semi-automated, and manual data collected during UFL 02. This process, once completed, will provide information on how the CFC and the USFK components processed joint BDA, as well as what the timelines and difficulties were. Once those areas for which improvements are warranted have been identified, JBDA will recommend enhancement concepts for the joint process to be implemented in UFL 03.

Prior to the baseline test in UFL 02, JBDA extracted data from the numerous USFK BDA cells to document the "as perceived" joint BDA process for both fixed and maneuver targets. After analyzing baseline test observations and performance data, JBDA developed an "as observed" USFK BDA process. This process model is being used to understand the context of the performance results and to predict the effects of potential enhancements.

With an accurate picture of the joint BDA process, JBDA will evaluate the ongoing analysis results to determine operational significance. With different types of data, the challenge is to appropriately combine qualitative data results (for example, player interviews, subject matter expert observations, USFK AARs, and Joint Universal Lessons Learned (JULLS)) with quantitative data results (for example, C4I

systems and trial reconstruction events). These data sources in our enhancement development process are depicted as follows:



Thus far, analysis of qualitative and quantitative data identifies the same trends and issues. All data consistently points toward the following potential improvement areas:

- Multi-level security information sharing
- Track weapons hit assessment for each day's engaged/executed missions
- "Pushed BDA" to decision-makers (that is, supported command's battle captain) on decisive points or those fixed targets that have been identified as a priority in the campaign plan and to components involved with main effort/objective areas/high-priority maneuver targets
- Shared, common database reporting from all five component Ops-Intel BDA producers and consumers
- Development of coherent information that leverages decentralized situational awareness
- Disseminating and displaying BDA the right way to show what is known and not known
- GCCS-K configuration to support current operations tools and applications (for example, ADOCS, Web-ATO, and ITS)
- Expanding ADOCS coordination windows to include post-strike BDA process cells
- Roles and responsibilities to monitor and facilitate BDA reporting for current operational decision-making

As analysis results are produced, these potential enhancements will be adjusted and associated DOTMLP-F areas will be developed as required for the enhancement to be implemented in UFL That is, JBDA, in cooperation with USFK, will evaluate analysis results to determine the operational significances and actions required to effect positive change in each DOTMLP-F area. JBDA's aim will be to produce and share joint BDA information for "support to the Joint Force Commander to facilitate operational decision-making" as described in the JBDA charter. The JROC stated this requirement in JROCM 156, "to provide…actionable, decision-quality, information to the warfighter through a fusion of existing databases (and real time feeds)…focus on how and what a commander requires in the execution phase of an operation." The aim of this effort is on operations and not planning. Some elements of this vision include:

- Seamless interoperability of C2 legacy systems
- Fusion of existing databases and real-time feeds
- Information manipulation and horizontal sharing
- Coherent information development with situational awareness, confidence, and accuracy qualifications
- Enabling actionable, decision quality data with what is known and not known displayed

With this in mind, JBDA will develop options and present courses of action for USFK selection. After UFL 03, JBDA will provide USFK with the information necessary to judge the value of each enhancement. The following diagram illustrates the major activities to be accomplished on the road to UFL 03, JBDA's enhanced test activity.

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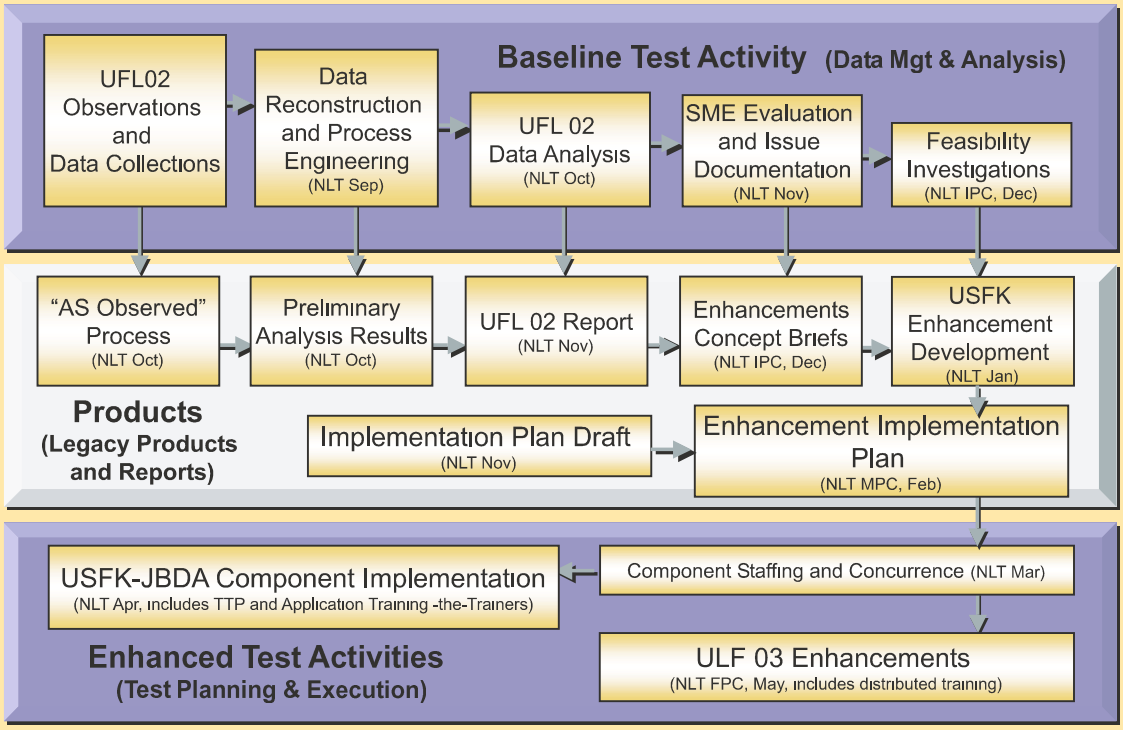

JBDA Roadmap to UFL 03

Milestones in JBDA's roadmap include:

JBDA's intent is to develop the best way, at the collateral security level, to fuse existing BDA databases and to improved DOTMLP-F factors impacting joint BDA to get actionable, decision quality information to the warfighter. JBDA's goal is to capitalize on increased capabilities and technologies to provide more timely information manipulation, production, and situational awareness sharing that produces more timely, accurate, and complete BDA.

Milestone	Schedule
• Research and monitor changes to doctrine, TTPs, and organization	08/15/02
• Research theater and component DOTMLP-F upgrades and process adjustments (JULLS and AAR)	09/23/02
• Ops Assessment of ops issues and interviews analysis results	11/04/02
• Review interim As Observed joint BDA process model	12/25/02
• Identify potential enhancements	10/11/02
• Joint Test Director approval of enhancement prioritization	10/11/02
• Develop enhancements concepts	11/29/02
• Produce enhancement white paper	11/15/02
• Produce enhancement concept briefs (for UFL IPC)	11/15/02
• Develop enhancements, source resources, and secure authorization	02/28/03
• Investigate enhancement feasibility (at IPC)	12/21/02
• Determine impact to "as observed" joint BDA process, and investigate adjustment options	01/17/03
• Develop associated section in enhancement implementation plan	02/11/03
• Staff component responsibilities and milestones	03/14/03
• Coordinate component implementation	04/23/03
• Coordination	04/09/03
• Installation and functional testing	04/15/03
• Operational testing and training	04/17/03
• Component acceptance	04/21/03
• Theater acceptance of enhancements	04/23/03
• Enhancement implementation review and adjustments	05/16/03
• Pre-UFL 03 enhancement training	08/15/03

WHO'S WHO

Lt Col John Liburdi is JBDA's new Deputy Test Director for Legacy and Support. He comes to this JT&E after a tour as Chief of Security Assistance to Italy based at the US Embassy in Rome. He is an Air Force Communications-Information Systems Officer and has an extensive background in establishing and maintaining long-haul voice and data pipelines. He spent the earlier years of his military career in the amphibious arena of the US Navy, and he completed a subsequent USAF tour handling the communications portion of strategic air strike mission planning. Lt Col Liburdi became familiar with the Intel community through two tours in specialized USAF Intelligence units where he managed product forwarding systems. In addition, he served as Chief of the Technical Services Division in a DoD Intel organization that dealt in communications security. Lt Col Liburdi earned his Masters degree in Management, attended the Air Command and Staff College and the NATO Defense College in residence, and attended the Joint Forces Staff College.

Maj John "Hoot" Gibson is JBDA's Chief of the Data Management and Analysis Division. He comes to this JT&E after a tour at Langley AFB, VA where he was Chief of the Assessments Section for the Aerospace Expeditionary Force Center. He is an Air Force Scientific Analyst and has an extensive background in test and evaluation. Maj Gibson began his career at Vandenberg AFB, CA as a reliability evaluator for the Peacekeeper ICBM IOT&E. While stationed at Vandenberg, he earned an MS in Computer Science at West Coast University. From there, he went on to the Air Force Institute of Technology and earned an MS in Operations Research. After 20 months at Wright Patterson AFB, OH, Maj Gibson was assigned to Peterson AFB, CO, Det 4 AFOTEC, as the COBRA DANE Test Director (a phased-array radar located at Shemya, AK). Next, he was assigned as an Assistant Professor of Mathematical Sciences at the US Air Force Academy. Maj Gibson then went to HQ AFOTEC at Kirtland AFB, NM where he was the GPS Block IIR satellite Test Manager for two years before moving over to Det 1 AFOTEC as the Navigation Warfare Test Director. Maj Gibson is a Distinguished Graduate of the USAF's Squadron Officers School, and he completed the Air Command and Staff College via seminar.

MAJ Michael W. Ganuelas is JBDA's new Chief of the Analysis Branch. He comes to this JT&E after a tour as a Combat Operations Analyst to TRADOC Analysis Center-Fort Lee (TRAC-LEE). TRAC-LEE analyzes combat service support systems, functions, and organizations. He spent the earlier years of his military career as a Signal Officer, commanding a tactical signal company in Fort Huachuca, Arizona. Additionally, he deployed during Operation JOINT ENDEAVOR to establish satellite communications between the Multi-National Divisions (MNDs). Major Ganuelas has his Masters degree in Operations Research from the Florida Institute of Technology. He is married to the former Leigh Ann Alcantara, and they have three children.

Maj Anne Conely is new to JBDA's Test Planning and Execution Division. She comes to this JT&E from the Joint Military Intelligence College in Washington, DC. She is an Air Force Intelligence Officer with experience in targeting, BDA, and analysis. She has worked in AOCs in Korea, Germany, and Italy. Additionally, Maj Conely has been an Acquisitions Officer at the National Air Intelligence Center and an Analyst in the Defense Intelligence Agency where she helped develop a web-based database. She is a graduate of Squadron Officer's School and Combat Targets School. Maj Conely holds an MBA from George Mason University and a BS in Mathematics from the University of Alabama.

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